IN THE CLAIMS

Please amend the claims as follows:

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40. (Currently amended) A frequency synthesizer comprising:

a voltage controlled oscillator including a configurable tail current source having a number of switched unit current sources;

a phase locked loop to control a frequency of an oscillating signal of the voltage controlled oscillator; and

an amplitude calibration unit to calibrate the configurable tail current source when the phase locked loop is disabled to achieve a desired amplitude for the oscillating signal,

the amplitude calibration unit detecting a voltage amplitude of the oscillating signal ~~voltage controlled oscillator~~ and adjusting the configurable tail current source ~~by activating a~~

~~subset of the switched unit current sources~~ to achieve the desired ~~voltage~~ amplitude for the oscillating signal,

wherein the adjusting comprises selecting ~~activating involves de-activating~~ switched unit current sources in discrete steps until the voltage amplitude falls below a target, the target being variably selectable on the basis of a current mode of operation.

41. (Previously presented) The frequency synthesizer of claim 40, wherein the voltage controlled oscillator includes additional configurable circuitry that affects the frequency of the voltage controlled oscillator, the frequency synthesizer further comprising:

a frequency calibration unit to adjust the additional configurable circuitry of the voltage controlled oscillator so as to calibrate the frequency of the oscillator while the phase locked loop is disabled.

42. (Currently amended) An RF integrated circuit adapted for coupling to an external voltage controlled oscillator, the RF integrated circuit comprising:

a configurable tail current source having a number of switched unit current sources;

a phase locked loop to control a frequency of an oscillating signal of the voltage controlled oscillator; and

an amplitude calibration unit to calibrate the configurable tail current source when the phase locked loop is disabled to achieve a desired amplitude for the oscillating signal,

the amplitude calibration unit detecting a voltage amplitude of the oscillating signal ~~voltage controlled oscillator~~ and adjusting the configurable tail current source ~~by activating a subset of the switched unit current sources~~ to achieve the desired ~~voltage~~ amplitude for the oscillating signal,

wherein the adjusting comprises selecting ~~activating involves de-activating~~ switched unit current sources in discrete steps until the voltage amplitude falls below a target, the target being variably selectable on the basis of a current mode of operation.

43. (Previously presented) The RF integrated circuit of claim 42, further comprising:

additional configurable circuitry to adjust the frequency of the voltage controlled oscillator; and

a frequency calibration unit to adjust the additional configurable circuitry of the voltage controlled oscillator so as to calibrate the frequency of the oscillator while the phase locked loop is disabled.

44. (Currently amended) An RF integrated circuit adapted for coupling to an external voltage controlled oscillator including a configurable tail current source having a number of switched unit current sources, the RF integrated circuit comprising:

a phase locked loop to control a frequency of an oscillating signal of the voltage controlled oscillator; and

an amplitude calibration unit to calibrate the configurable tail current source when the phase locked loop is disabled to achieve a desired amplitude for the oscillating signal,

the amplitude calibration unit detecting a voltage amplitude of the oscillating signal ~~voltage controlled oscillator~~ and adjusting the configurable tail current source ~~by activating a subset of the switched unit current sources~~ to achieve the desired ~~voltage~~ amplitude for the oscillating signal,

wherein the adjusting comprises selecting ~~activating involves de-activating~~ switched unit current sources in discrete steps until the voltage amplitude falls below a target, the target being variably selectable on the basis of a current mode of operation.

45. (Currently amended) The RF integrated circuit of claim ~~44~~ 42, further comprising:

additional configurable circuitry to adjust the frequency of the voltage controlled oscillator; and

a frequency calibration unit to adjust the additional configurable circuitry of the voltage controlled oscillator so as to calibrate the frequency of the oscillator while the phase locked loop is disabled.

46. (New) The frequency synthesizer of claim 40, wherein the current mode of operation is selected from among at least two modes associated with different amplitudes for the oscillating signal.

47. (New) The frequency synthesizer of claim 46, wherein the at least two modes comprise a transmit mode and a receive mode.

48. (New) The frequency synthesizer of claim 46, wherein the at least two modes are for at least two different wireless communication systems.

49. (New) The frequency synthesizer of claim 46, wherein the target is determined based on a band gap voltage reference.

50. (New) The frequency synthesizer of claim 40, wherein the additional configurable circuitry of the voltage controlled oscillator comprises a plurality of switched capacitors, and wherein the frequency calibration unit selectively activates the plurality of switched capacitors to calibrate the frequency of the oscillator.